



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

JUL 28 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 12341

EXPIRATION DATE: June 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Space Systems/Loral
Palo Alto, CA
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of a Space Systems/Loral FS-1300 series satellite assembly containing non-DOT specification pressure vessels pressurized with certain Division 2.2 materials. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302 in that a non-DOT specification pressure vessel is authorized as prescribed herein.
5. BASIS: This exemption is based on the application of Space Systems/Loral's (SS/L) dated September 1, 1999, submitted in accordance with § 107.109, and the public proceeding thereon.

JUL 28 2000

Continuation DOT-E 12341

Page 2

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Helium compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are non-DOT specification pressure vessels which are part of a Space Systems/Loral FS-1300 series satellite assembly described in SS/L's application.

(1) The containers are:

(i) Propellant Tanks (Loral Part Nos. E033099-01, E130999): Welded Titanium Alloy 6AL-4V spheres. The tanks are 49 inches in diameter and designed and tested for a maximum working pressure of 250 psig as per SS/L Specifications SE E023984 or SE E142122 and information provided in SS/L's application on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The tanks may not be charged to a pressure exceeding 50 psig during transportation.

(ii) Pressurant Tanks (Loral Part No. E033675-01): Aluminum Alloy 6061-T6 cylinder with graphite-epoxy composite (Kevlar 49) over wrap, fitted with end bosses. The tanks are 13 inches in diameter and 30.8 inches long, designed and tested for a working pressure of 4000 psig per SS/L Specification SE E023999 and information provided in SS/L's application on file with the OHMEA. The tanks may not be charged to a pressure exceeding 400 psig during transportation.

b. OPERATIONAL CONTROLS: The satellite must be shipped in the Satellite Container Shown on SS/L drawing 37957 on file with the OHMEA.

JUL 28 2000

8. SPECIAL PROVISIONS:

a. The transportation of the satellite shipping container authorized under this exemption is limited to the following movements:

(1) From Space Systems/Loral's facility in Palo Alto, California to:

(i) The Jet Propulsion Laboratory facility in Pasadena, California by dedicated motor vehicle and return;

(ii) The Boeing Aerospace facility in Kent, Washington by dedicated motor vehicle and return;

(iii) The Boeing Aerospace facility in Seal Beach, California by dedicated motor vehicle and return;

(iv) The Lockheed Martin facility in Sunnyvale, California by dedicated motor vehicle and return;

(v) The Arnold Defense Center in Nashville, Tennessee by dedicated motor vehicle and return.

(vi) Cape Canaveral Air Station in Titusville, Florida via Moffett Naval Air Station in Mt. View, California. Ground transport must be by dedicated motor vehicle. Transportation from Moffett Naval Air Station to Cape Canaveral Air Station must be by United States Air Force (USAF) aircraft.

(vii) Cape Canaveral Air Station in Titusville, Florida via Astrotech facility in Titusville, Florida by dedicated motor vehicle and return.

(viii) The SeaLaunch Home Base in Long Beach, California from either: Los Angeles International Airport, John Wayne Orange County Airport, or Long Beach Airport. Air Transportation must be by USAF aircraft. Ground transportation within any segment must be by dedicated motor vehicle.

JUL 28 2000

Continuation DOT-E 12341

Page 4

(2) From Cape Canaveral Air Station in Titusville, Florida to the Astrotech facility in Titusville, Florida by dedicated motor vehicle and return.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - The satellite shipping container must be marked "DOT-E 12341" on two opposite sides in letters at least 2 inches in height on the contrasting background.

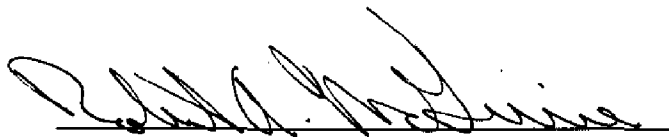
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each aircraft or motor vehicle used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (§§ 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

JUL 28 2000

(DATE)

Address all inquiries to: Associate Administrator for
Hazardous Materials Safety, Research and Special Programs
Administration, Department of Transportation, Washington, D.C.
20590.

Attention: DHM-31.

The original of this exemption is on file at the above office.
Photo reproductions and legible reductions of this exemption
are permitted. Any alteration of this exemption is
prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S.
Department of Transportation, 400 7th Street, S.W.,
Washington, DC 20590-0001, Attention: Records Center, 202-366-
5046.

PO: ss

JUL 28 2000

Continuation DOT-E 12341 APPENDIX A

Page 6

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
Boeing Aerospace Kent, WA 98032	9/1/99	JUL 28 2000	6/30/2002
Lockheed Martin Sunnyvale, CA 94089	9/1/99	JUL 28 2000	6/30/2002
Jet Propulsion Lab Pasadena, CA 91109	9/1/99	JUL 28 2000	6/30/2002
Boeing Aerospace Seal Beach, CA 90740	9/1/99	JUL 28 2000	6/30/2002
Astrotech Titusville, FL 32780	9/1/99	JUL 28 2000	6/30/2002
United States Sea Launch Long Beach, CA	9/1/99	JUL 28 2000	6/30/2002



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Hazardous Materials Safety